



Massachusetts
Department
of
ENVIRONMENTAL
PROTECTION

AMS Center Seeks Collaborators For Upcoming Verification Tests

The Advanced Monitoring Systems Center (AMS) is seeking collaborators for the verification tests for air and water monitoring technologies being planned for the fall and winter months (see box for an example). Prospective collaborators may be federal or state agencies, testing laboratories, research groups, private sector companies, or organizations interested in learning about needed technologies, encouraging emerging technologies, or promoting the use of innovative technologies.

Collaborators can contribute to the verification testing process in a variety of ways, such as sharing test expenses and providing in-kind contributions, e.g., technical support personnel, reference monitors and test equipment, use of a laboratory or site to conduct the test, identification of vendors interested in the test, and assistance in drafting the test/QA plan or serving as peer reviewers of the draft final report. Both the collaborators and the AMS Center can benefit.

- Collaborators can increase their first-hand knowledge of environmental monitoring technologies; obtain information about their process, facility, or site; and, as a contributor to the test,

benefit from publicity generated by media events and distribution of test results. They also have access to the data collected and can add to their visibility as an environmentally-friendly company or organization.

- With collaborators' support, the AMS Center, managed by Battelle in partnership with ETV, can make the best use of the program's resources, reduce the time and costs of conducting the test, have access to existing facilities, and benefit from the expertise of knowledgeable collaborators.

In recent verification tests, the AMS Center has successfully collaborated with several agencies on monitoring verification tests, including EPA's National Risk Management Research Laboratory (NRMRL), the Massachusetts Department of Environmental Protection (DEP), and the U.S. Department of Energy's (DOE) National Energy Technology Laboratory (NETL).

The U.S. Army's Construction Engineering Research Laboratory conducted a verification test of Cooper Environmental Services' X-ray-based continuous emission monitor (XCEM) at its

(See Collaborators on Page 2)



The AMS Center is part of the U.S. Environmental Protection Agency's Environmental Technology Verification Program. ETV was established to accelerate the development and commercialization of improved environmental technologies through third-party verification testing and reporting of the technologies' performance. The ETV process provides purchasers and permittees with an independent assessment of the technology they are buying or permitting and facilitates multi-state acceptance. For further information, contact Helen Latham at Battelle, 505 King Ave., Columbus, Ohio 43201-2693; Phone 614-424-4062; Fax 614-424-5601; E-mail lathamh@battelle.org.

Example: Components of a Collaborative Verification Test



Imacc 80 m-path extractive FTIR monitor, courtesy of Imacc Instruments, Round Rock, TX.

- **Typical technology:** Fournier transform infrared technologies (FTIRs) can be installed in stacks to monitor extractively or through the stack (via an optical path) for emissions of hazardous air pollutants that need to be measured in real time and individually.
- **Potential collaborators:** Organizations (e.g., American Chemistry Council, EPRI); government-supported or independent testing labs; state, regional, and federal agencies.
- **Technology users:** Possible users include power plants, chemical and petrochemical plants, incinerators, and manufacturing plants.
- **Technology vendors:** Companies that might participate in the verification test develop instruments that can measure emissions in real time from plants such as those listed above.

Collaborators *(from page 1)*

demilitarization incinerator located at the Tooele (UT) Army Depot. This test is to verify the performance of instruments in determining multi-metal concentrations in combustion source emissions. Battelle staff observed the test and are using the Army's reference and test data to prepare the verification report.

Following is a summary of ongoing verification tests that offer opportunities for collaboration.

Arsenic water analyzers. Three vendors of arsenic analyzers are to participate in the verification test, which is scheduled to begin in September. The instruments will be monitoring for arsenic at the 10 parts per billion (ppb) level in fresh water, well water, and public drinking water. Contact Adam Abbg, 614-424-5484 or abbgya@battelle.org.

Ambient fine particulate monitors. Verification reports and statements for the 13 monitors

tested will be available on the ETV web site this fall. For further information, contact Ken Cowen, 614-424-5547 or cowenk@battelle.org.

Mercury CEMs. Verification reports and statements for four mercury CEMs submitted by three vendors will be available on the ETV web site this fall. Phase 2 of the verification test is to be conducted at a full-scale facility, such as an incinerator. Contact: Tom Kelly, 614-424-3495 or kellyt@battelle.org.

Multi-metals CEMs. One vendor participated in the verification test conducted by the U.S. Army's Construction Engineering Research Laboratory and observed by staff from the AMS Center. Battelle will prepare a verification report using data from the test. The final verification report and statement are expected to be available later this fall. Contact Tom Kelly (see above).

Multi-parameter water probes.

Four vendors will be participating in this test, which is scheduled this fall. Battelle is discussing collaborating on this test with a division of the National Oceanic and Atmospheric Administration (NOAA). Contact: Jeff Myers, 614-424-7705 or myersjd@battelle.org.

On-board vehicle emission analyzers.

A four-day verification test of an on-board emission monitor in gasoline-powered vehicles was conducted in May for Clean Air Technologies of Buffalo, NY. The final verification report and statement are expected to be issued this fall. Contact Tom Kelly (see above).

Turbidimeters. The verification report and statement for the instrument submitted by ABB Automation, Inc., of Lombard, IL, will be available on the ETV web site this fall. Contact Ken Cowen (see above).

Verification tests are also being planned or considered for three new technology categories: ammonia slip monitors, water borne pathogen detectors, and portable gas emission analyzers. Collaborators and vendors interested in verification tests of these technologies should contact Tom Kelly (see above).

Upcoming Events

September 2001

9-14 Environmental Technology Verification Workshop, India

October 2001

4-5 AMS Center's water stakeholder committee, Coeur d'Alene, ID

18-19 AMS Center's air stakeholder committee, Seattle, WA